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PART II—Section 4

Statutory Rules and Orders issued by the Ministry of Defence

MINISTRY OF DEFENCE

New Delhi, the 14th March 1953

S.R.O. 97.—An examination for selection as Special Entry Cadets in the Indian Navy will be held by the Union Public Service Commission at Allahabad, Bombay, Calcutta, Delhi, Jullundur, Madras, and Nagpur sometime in July 1953. Candidates who qualify at the written examination will be required to appear for interview before a Services Selection Board.

2. The approximate number of vacancies to be filled as a result of this examination will be 10. This is only a provisional estimate and is liable to vary.

3. Candidates for admission to this examination must have been born not earlier than the 2nd July 1934 and not later than the 1st July 1936.

4. A candidate must be an unmarried male and must be:—

- (a) a citizen of India, or
- (b) a subject of Sikkim, or
- (c) a person who has migrated from Pakistan with the intention of permanently settling down in India, or
- (d) a subject of Nepal or of a Portuguese or French possession in India.

NOTE.—The appointment of candidates in categories (c) and (d) above will be subject to the issue of certificates of eligibility in their favour by the Government of India. Certificates of eligibility will not however be necessary in the case of candidates belonging to any of the following categories:—

- (1) Persons who migrated to India from Pakistan before 19th July 1948 and have ordinarily been resident in India since then;
- (2) Persons who migrated to India from Pakistan after 18th July 1948 but before 30th September 1948 and had got themselves registered as citizens within the time allowed;
- (3) Gorkha subjects of Nepal; and
- (4) Non-citizens who entered service under the Union of India before the commencement of the Constitution, viz., 26th January 1950, and who have continued in such service since then. Any such persons who re-entered or may re-enter such service with a break, after the 26th January 1950 will however require certificates of eligibility in the usual way.

NOTE 2.—A widower or a person who has divorced his wife cannot be treated as an unmarried male for the purpose of this rule.

5. Candidates should be medically fit in all respects for service in any part of the world. The standards of medical fitness are shown in Appendix I. Candidates are advised in their own interest to get themselves medically examined before submitting their applications, to avoid disappointment at the final stage.

6. Candidates must undertake not to marry until they complete their full training. A candidate who marries subsequent to the date of his application, though successful at this or any subsequent examination will not be selected for training, and a candidate who marries before completion of his entire training will be liable to be discharged, and to refund all expenditure incurred on him by the Government.

7. Candidates must have passed one of the following examination:—

- (a) the Intermediate Examination of a University or Board approved by the Parliament or a State Legislature, or an examination recognised by such University or Board as equivalent to its Intermediate Examination; or
- (b) the first year examination under the three year Degree course of the Delhi University; or
- (c) the Jamia Senior Examination of the Jamia Millia Islamia, Delhi, provided that the examination has been passed on or after 3rd December, 1946; or
- (d) the Cambridge Higher School Certificate examination; or
- (e) the Cambridge School Certificate examination and thereafter must have successfully completed one academic year in a recognised school or college; or
- (f) a diploma examination in engineering provided that the examination is taken after a course lasting not less than 2 years subsequent to Matriculation and provided also that the examination is recognised by a State Government for employment under it; or
- (g) any other examination which may be recognised by the U.P.S.C. as equivalent to the above.

NOTE.—Candidates who have appeared or intend to appear at any of the above examinations may also apply for admission to this examination. The applications of such candidates will be accepted provisionally and the successful ones will be required to furnish proof of their having passed any one of the examinations as indicated as soon as possible and in any case before they are required to commence training.

8. A candidate must satisfy the Union Public Service Commission and the appointing authority that he is suitable in all respects for selection as a Cadet in the Indian Navy.

9. The decision of the Union Public Service Commission as to the eligibility or otherwise of a candidate for admission to the examination shall be final.

10. No candidate shall be admitted to the examination unless he holds a certificate of admission from the Union Public Service Commission.

11. Any attempt on the part of a candidate or his relations or friends to enlist support for his candidature will disqualify him for admission.

12. The maximum number of candidates to be admitted to the examination may at the discretion of the Union Public Service Commission be limited to such number as the Commission may decide. If a limit is imposed and the number of candidates exceeds that limit, the Union Public Service Commission shall select from amongst the applicants those who shall be admitted to the examination and shall have regard in so doing to the suitability of the applicants to become Naval officers.

13. The subjects for the examination, the maximum number of marks obtainable for each subject and the syllabus are given in Appendix II. In order to qualify in the written examination candidates must obtain $33\frac{1}{3}$ per cent. of marks in each subject and 45 per cent. in the aggregate.

The Union Public Service Commission may, after considering the results of the written examination, alter the percentages of qualifying marks, if they consider it necessary to do so.

14. The Union Public Service Commission shall prepare a list of candidates in the order of merit according to the aggregate marks awarded to each candidate at the written examination. Candidates who obtain qualifying marks at the written

examination shall appear before a Services Selection Board. The maximum number of marks obtainable at the Services Selection Board interview will be 900. In order to qualify in the interview candidates must obtain not less than 360 marks. Candidates to be acceptable should secure the minimum qualifying marks both in the written examination and the Services Selection Board interview. Subject to this condition and to their being declared medically fit by a Military Medical Board they will then be placed in the order of merit on the basis of the total marks secured. The final selection for admission to the Indian Navy will be made in the order of merit upto the number of vacancies available.

15. Selected candidates will be appointed as Cadets and allocated to one of the following Branches of the Indian Navy.—

- (a) Executive Branch.
- (b) Engineering Branch.
- (c) Electrical Branch.
- (d) Supply and Secretariat Branch.

Candidates should indicate in the application form their order of preference for those Branches which they wish to join. Due consideration will be given to the preferences expressed by a candidate but the Government of India reserve power to assign him to any Branch of the Service taking into consideration the vacancies available in each Branch and the suitability of the candidate.

16. Cadets allocated to the Executive Branch and the Supply and Secretariat Branch will undergo one year's training at the Joint Services Wing of the National Defence Academy. On completion of this training, they will undergo further training for a period of approximately 3 years in Ships and Training Establishments of the Indian Navy. During this further training Cadets are promoted to the rank of Midshipman and Acting Sub-Lieutenant.

17. While at the National Defence Academy, cadets will be subject to the discipline of the Academy. During training in Ships and Establishments of the Indian Navy they will be subject to the Indian Navy (Discipline) Act 1934. During all stages of initial training Cadets etc. will be liable to be withdrawn from training and discharged if their progress is found to be unsatisfactory or they are otherwise considered unsuitable.

18. While at the Academy, the cost of Cadets' training including books, uniform, accommodation, boarding and medical treatment will be borne by the Government but the Cadets will be expected to meet their pocket expenses. The minimum pocket expenses of Cadets are not likely to exceed Rs. 40 per month. Where Cadets' parents or guardians are unable to meet wholly or partly even this expenditure, financial assistance may be granted by the Government provided no cadet, whose parent or guardian has an income of Rs. 300 or above per month would be eligible for the grant of financial assistance.

A candidate desiring financial assistance should, immediately after being finally selected for training at the Academy, submit an application through the District Magistrate of his district who will with his recommendation forward the application to the Ministry of Defence, Government of India.

19. Subsequent training in ships and establishments of the Indian Navy is also at the expense of the Government. The question of other financial arrangements such as Cadets' private expenses etc. during the first six months of such training is under consideration at present. After six months of training in ships and establishments of the Indian Navy when Cadets are promoted to the rank of Midshipman they begin to receive pay and parents are not expected to pay for any of their expenses.

20. Cadets allocated to the Engineering and Electrical Branches will undergo a short preliminary course of two to four months' duration at I.N.S. VENDURUTHY, Cochin. On completion of this training they will be sent to the United Kingdom for training with the Royal Navy. The period of training with the Royal Navy will be approximately 6 years.

During this period cadets will be promoted to the ranks of Midshipman, Acting Sub-Lieutenant, Sub-Lieut. and possibly to the rank of Lieutenant.

During training with the Royal Navy except as may be otherwise provided for, they will be governed generally by the Royal Navy Regulations. During all stages of initial training, cadets etc. will be liable to be withdrawn from training and discharged, if their progress is found to be unsatisfactory or they are otherwise considered unsuitable.

21. Training with the Royal Navy is at the expense of the Government of India. During such training Cadets etc. receive pay and other allowances upto and including the rank of Acting Sub-Lieutenant in accordance with the Royal Navy Regulations.

Besides they are given an overseas allowance of which the present rates are £50 per annum for cadets and midshipmen and £75 for Acting Sub-Lieutenants. On promotion to the rank of Sub-Lieutenant, they receive Indian rates of pay. Their pay during the first two years or so is not sufficient to meet all their private expenses and expenses while on vacations when they are expected to live outside. The parents and guardians of Cadets are therefore required to meet the extra expenses which in the case of Engineer officers amount to £135 (approx.) and in the case of Electrical Officers £140 (approx.). Of this amount £75 is required to be remitted to the United Kingdom before the Cadets arrive there, and the balance one year thereafter.

The majority of the States Governments have instituted scholarships for candidates from their respective States who are selected as Cadets in the Indian Navy and who are sent for training in the United Kingdom. Details of the Scholarships are given in Appendix III.

22. Candidates when called up for interview by a Services Selection Board and selected candidates when called up for training will be eligible for T.A. in accordance with the rules current. Candidates who have previously been before a Services Selection Board for the same type of commission are not entitled to T.A. on subsequent occasions.

23. Pay and allowances, pension leave and other conditions of service after the grant of commission, will be identical with those applicable from time to time to regular officers of the Indian Navy.

24. No candidate will normally be permitted to resign voluntarily whilst under training.

25. Before a candidate is selected as a Cadet in the Indian Navy his parent or guardian will be required to sign—

- (a) a certificate to the effect that he fully understands that he or his son/ward shall not be entitled to claim any compensation or other relief from the Government in respect of any injury which his son/ward may sustain in the course of or as a result of the training whether due to the negligence of any person or otherwise;
- (b) a bond to the effect that if for any reasons considered within the control of the candidate, he wishes to withdraw from training, or fails to accept a commission if offered, he will be liable to refund the whole or such portion of the cost of tuition, food, clothing and pay and allowances received, as may be decided upon by Government;
- (c) a declaration that he is in a position and will be prepared to discharge the financial obligations attaching to the candidates' training in the United Kingdom. (This declaration will be required only in the case of Cadets allocated to the Engineering and Electrical Branches).

NAGENDRA SINGH, Dy. Secy.

APPENDIX I

PHYSICAL STANDARDS FOR ADMISSION AS SPECIAL ENTRY CADETS IN THE INDIAN NAVY

To be passed fit for admission to the Indian Navy a candidate must be in good mental and bodily health and free from any physical defect likely to interfere with the efficient performance of duty.

2. The following points will be particularly observed:—

- (a) that there is no evidence of weak constitution, imperfect development, serious malformation or obesity;
- (b) that there is no maldevelopment or impairment of function of the bones or joints;
- (c) that there is no malformation of the head, deformity from fracture or depression of the bones of the skull;
- (d) that there is no impediment of speech;
- (e) that there is no impaired hearing, discharge from or disease of either ear, unhealed perforation of the tympanic membranes or signs of acute or chronic suppurative otitis media or evidence of radical or modified radical mastoid operation;
- (f) that there is no disease of the bones or cartilages of the nose, nasal polypus or disease of the nasopharynx;
- (g) that there are no enlarged glands, tubercular or due to other diseases, in the neck and other parts of the body and that the thyroid gland is normal.

NOTE.—Scars of operations for the removal of tuberculous glands are not a cause for rejection provided that there has been no active disease within the preceding 5 years and the chest is clinically and radiologically clear.

(h) that there is no disease of the throat, palate, tonsils or gums or any disease or injury affecting the normal function of either Mandibular joint.

NOTE.—Simple hypertrophy of the tonsils, if there is no history of attacks of tonsillitis, is not a cause for rejection.

(i) that there is no sign of functional or organic disease of the heart and blood vessels;

(j) that there is no evidence of pulmonary tuberculosis or previous history of this disease or any other chronic disease of the lungs;

(k) that there is no evidence of any disease of the digestive system. The liver and spleen should be normal;

(l) that there is no hernia or tendency thereto;

(m) that there is no hydrocele, varicocele or any other disease or defect of the genital organs;

(n) that there is no disease of the kidneys. Cases showing albuminuria or glycosuria will not be accepted;

(o) that there is no fistula and/or fissure of the anus or evidence of hæmorrhoids;

(p) that there is no skin disease unless temporary or trivial. Scars which by their extent or position cause or are likely to cause disability or marked disfigurement are a cause for rejection;

(q) that there is no congenital, active or latent venereal disease;

(r) that there is no history or evidence of mental disease. Candidates suffering from epilepsay, incontinence of urine or ENURESIS will not be accepted;

(s) that there is no squint or morbid condition of any eye or of the lids liable to a risk of aggravation or recurrence;

(t) that there is no active Trachoma or its complications;

NOTE.—Remedial operations are to be performed prior to entry. No guarantee is given of ultimate acceptance and it should be clearly understood by the candidate that the decision whether an operation is desirable or necessary is one to be made by his private medical adviser. The Government will accept no liability regarding the result of operation or any expense incurred.

3. Height, weight and chest—

(a) *Height*.—The minimum height for a candidate of 18 years of age is 62" except where otherwise stated. In case of Gurkhas, Nepalese, Assamese and Garhwal candidates, the minimum height may be reduced by 2".

(b) *Weight*.—A table showing correlation between height and weight is given below for guidance of the examining Medical Officer/Medical Board:—

Age period	16—17	18—19	20—22
Height 'inches'	lbs	lbs	lbs
60	95	99	104
61	97	101	106
62	100	104	109
63	103	107	112
64	106	110	116
65	110	114	118
66	112	116	122
67	116	120	125
68	120	124	129
69	124	128	133
70	128	132	137
71	133	137	141
72	138	142	146

NOTE.—Heights and Weights as shown above are for men fully stripped. It is not possible to lay down precise standards with regard to height and weight. This is left to the discretion of the Recruiting Medical Officer/Medical Board, who may select candidates below height/weight who in his/their opinion would acquire the necessary height/weight standards on attaining the age of 18/completion of training.

(c) *Chest*—The chest should be well proportioned and well developed with a minimum range of expansion of 2 inches.

4. It should be ensured that sufficient number of sound, *natural* teeth for efficient mastication are present.

(a) In order to assess the dental condition of an individual, teeth in good apposition with corresponding teeth in the other jaw will be allotted points as follows:—

(i) General incisor, lateral incisor, canine, 1st and 2nd premolar and under developed 3rd molar—1 point each.

(ii) 1st and 2nd molar and fully developed third molar—2 points each. When all 32 teeth are present, there will be a total count of 22 points.

(b) The following teeth on each side of the jaw in good functional apposition must be present:—

(i) Central incisor, lateral incisor, canine . At least one must be present

(ii) 1st premolar 2nd premolar . At least two must be present.

(iii) 1st molar, 2nd molar, 3rd molar . At least two must be present.

(c) A candidate must have a minimum of 14 dental points to be acceptable.

(d) Candidates suffering from severe pyorrhoea will be rejected. Where the state of pyorrhoea is such that in the opinion of the Dental Officer, it can be cured without extraction of teeth the candidate may be accepted.

5. An X-Ray examination of chest will be carried out in the case of all officers taken in the Service as direct entry. Any defects or disability discovered during this examination will disqualify a candidate from entry into the service.

EYESIGHT STANDARDS

Branch	Distant Vision		Near Vision	Colour Perception Standard
Executive	6/6	6/12	Each eye D = 0.5 Snellen	1
NOTE :—Candidates who fail to secure night vision standard grade 11 (eleven) are to be rejected.				
Engineering	6/9	6/12 Correctable to 6/6	Each eye D = 0.5 Snellen	3
Supply and Secretariat	6/12	6/24 correctable to 6/6	Each eye D = 0.6 Snellen with glasses	3
Electrical	6/12	6/24 correctable to 6/6	Each eye D = 0.6 Snellen with glasses	3

APPENDIX II

The subjects of the written examination, the time allowed for and the maximum marks allotted to each subject will be as follows:—

Subject	Time allowed	Maximum marks
(A) Compulsory—		
1. English	2½ hours	300
2. General Knowledge	2½ hours	300
3. Lower Mathematics (2 papers)	2 hours each	300
(B) Optional—		
4. Physics plus Chemistry (2 papers)	3 hours each	300
5. British History from 1485	3 hours	300
6. Indian History	3 hours	300
7. Higher Mathematics (2 papers)	3 hours each	300

NOTE 1.—Candidates for Executive, Engineering and Electrical Branches must select subject 4 and any of the remaining subjects 5—7.

NOTE 2.—Candidates for Supply and Secretariat Branch must select any two of the subjects 4—7.

NOTE 3.—Candidates who do not state in their application form the optional subjects offered by them or offer wrong subjects will do so at their own risk and may be disqualified. No request for a change in the optional subjects offered by a candidate will be entertained.

2. All papers should be answered in English.

3. The detailed syllabus is given below:—

(1) *English*.—The test in English will be designed to value understanding and command of the language. Amongst other tests a passage will be set for précis.

In English, and in every other subject, deductions for bad English spelling will be made up to 10 per cent. of the maximum marks.

(2) *General Knowledge*.—The paper will be divided into two parts:

Part A—dealing mainly with Current Affairs and History;

Part B—dealing with Science and Geography.

The following syllabus is designed to indicate the scope of each subject included in this paper. The topics mentioned are not to be regarded as exhaustive and questions on topics of similar nature not mentioned in the syllabus may also be asked. Candidates' answers are expected to show their intelligent understanding of the question and not knowledge of any text book.

PART A

Current Events.—Knowledge of important events that have happened in India during the past two years. India's system of Government. Important measures of legislation whether undertaken by the Central or State Legislatures. Broad questions of India's policy relating to foreign affairs. Questions set will test the factual knowledge of candidates.

World events of international importance. Important personalities, both Indian and foreign. Sports and other cultural activities of outstanding importance.

Indian History.—Broad outline knowledge of Indian History. Knowledge of India's ancient culture and civilization as disclosed by monuments, ancient buildings and masterpieces of literature. Growth of self-government. Main stages in the national movement leading to Independence.

World History.—Elementary knowledge of major events in world history. Reforms or national movements such as represented by the French Revolution, the Industrial Revolution in Europe, the America War of Independence, the foundation of U.S.S.R., World Wars I and II, Modern freedom movements in Asia.

PART B

Science—

Physics.—Physical properties and states of matter and simple measurements of mass, weight, density and specific gravity. Motion of object: Velocity, acceleration, force gravity. Effects of heat, measurement of temperature, transference of heat, change of state.

Rectilinear propagation of light, phenomenon of reflection and refraction.

Natural and artificial magnets—properties of a magnet.

Electricity, static and current, conductors, and non-conductors, hearing, lighting and magnetic effects of currents.

Chemistry.—Physical and chemical changes, elements, mixtures and compounds. chemical properties of air, chemical composition of water. Preparation and properties of Oxygen, Hydrogen and Nitrogen, Acids, Bases and Salts, Carbon, Coal, Carbon-di-oxide. Elementary knowledge of the human body and its important Organs. Names and uses of common animals, trees, plants, flowers, birds and minerals.

Common epidemics, their causes, means of prevention and cure.

Eminent scientists and their achievements.

Geography.—The shape and movements of the earth. Time, Night and day and the seasons. Climate and Weather—the main climatic and vegetation regions. The Earth's crust-erosion, transportation and deposition; earthquakes and volcanoes. Tides and Ocean currents, Maps.

Human occupations and activities in relation to Geographical factors.

The Geography of India with special reference to the above.

3. Lower Mathematics.

PAPER I

Arithmetic.—Arithmetic, including simple methods of using statistical data.

The mensuration of plan areas and simple solid bodies. The determination of area, volume and density by displacement by weighing etc.

Geometry.—The substance of Euclid's six books. Elementary ideas in solid geometry treated informally; straight lines, planes, rectangular blocks, wedges, pyramids, cylinders, cones and spheres. Drawing and interpretation of plan and elevation.

Algebra.—Formula, their evaluation and transformation, the notion of a function; rate of change. The gradient and area of a graph. The solutions of equations, linear and quadratic, simple and simultaneous. The use of logarithms and meaning and simplest properties of negative and fractional indices. Arithmetical and finite geometrical sequences.

NOTE.—In the absence of any special instructions that a question is to be answered by a particular method candidates are at liberty to choose their method from any branch of mathematics.

PAPER II

Trigonometry.—Solution of plane, triangles, graphs of trigonometrical function; use of four figure tables, additional theorems.

Mechanics.—The lever, the inclined plane, the pulley, the balances and other simple machine; the composition and resolution of forces in one plane; moments; simple graphical methods; simple cases of equilibrium, properties of the centre of gravity; work; velocity ratio, mechanical advantage, and efficiency of a machine.

The composition and resolution of velocities and acceleration in one plane, rectilinear motion under uniform acceleration; the conservation of linear momentum work, energy and power; graphical treatment of varying velocities accelerations and forces.

Proofs of the parallelogram and triangle of forces. and of the principle of moments will not be asked for. Questions will not be set on curvilinear motion.

(4) *Physics plus Chemistry*.—Two question papers will be set. One paper will be two-thirds Electricity and one-third Chemistry, and the other paper two-thirds Physics other than Electricity and one-third Chemistry. In each paper candidates will be required to answer a question in Chemistry but a choice of questions will be given so that full marks may be scored without a knowledge of Organic Chemistry.

Physics. Paper I—Section I.

Electricity.—The fundamental ideas concerning electric currents, difference of potential, resistance, construction and mode of action of the commoner primary batteries. The fundamental laws of electrolysis and their application in secondary cells and electro-plating. Heating effect of a current, its application in incandescent and arc lamps, electric welding, cooking etc. The phenomena of permanent and induced magnetism in iron, fields of magnetic force; the magnetic field associated with an electric current. The construction and action of an electro-magnet; application in electric bells and telephones. The similar phenomena of electric-magnetic induction, broad principles and applications of the induction coil, magneto, dynamo, and motor. The fundamental ideas concerning wireless telegraphy. The simplest methods of measuring electric current, difference of potential and resistance; practical definitions of ampere, volt and ohm. Ohm's law. Construction and mode of action of simple measuring instruments; electric transmission of power by direct current; joule, watt, Board of Trade unit of electric energy.

Paper II—Section I.

General Principles of measurement, solids, liquids and gases.

Hydrostatics.—Fluid pressure; floating bodies. Determination of specific gravity. Gaseous pressure. Boyle's Law, Atmospheric pressure; barometers. Air and water pumps and other simple instruments.

Heat.—Temperature; thermometers; Specific heat; latent heat; calorimeters. Expansion; measurement and simple illustrations. Transmission of heat; convection, conduction and radiation; application to heating and ventilating. Vaporization; distillation, humidity, fog and cloud. Heat considered as energy; mechanical equivalent. Generation of heat; calorific values.

Optics.—Transmission, reflection, refraction of light. Prisms and lenses; the formation of images. Construction of simple telescope and microscopes. The eye; spectacles. Intensity: principles of illumination, photometry. Dispersion; spectroscopes; colour.

Chemistry

Paper I (Section II): Inorganic Chemistry.—The Chemical properties of oxygen, hydrogen, nitrogen, chlorine, carbon, sulphur phosphorus and their common compound. The general characteristics and behaviour of the metal potassium, calcium, aluminium, copper, zinc, mercury, tin, lead and iron. The preparations (without technical details) and uses of chemicals of industrial importance, such as oxygen, soda, sulphuric acid, coal gas and of the more important metals.

PAPER II (Section II) CHEMISTRY

General Chemistry.—Elements, compound and mixtures. Laws of chemical combination. Equivalents, molecular and atomic weights. Structural formulas and valency. Outlines of the properties of solutions. Heat of reaction.

Organic Chemistry.—Outlines of the Chemistry of the simple compounds containing not more than two carbon atoms directly connected. An elementary knowledge of the properties of benzene and its simpler derivatives. The part played by carbon compounds in the life of animals and plants, fats, soap, starch and sugars, treated descriptively. Carbon compounds as source of energy.

(5) *British History from 1485*.—British History, including British Colonial History, and European History as affecting British History.

Although a fixed date is given for the beginning of the period, candidates will be expected to know in general outline how the initial position was reached. Such knowledge of geography as is necessary to make the history comprehensive will be required.

(6) *Indian History with special reference to the History of India from 1526 onwards*.—The paper will deal with great men and great events, great changes and great movements, and the broad features of general life in the history of India.

(7) *Higher Mathematics*

PAPER I

Geometry.—Elements of solid geometrical drawing equations to the straight line, circle, ellipse parabola, hyperbola and other simple curves, in rectangular co-ordinates. Acquaintance is expected only with the simplest theorems about the curves. Candidates are free to use the methods of the infinitesimal calculus.

Algebra.—Elementary knowledge of the use of indeterminate co-efficients, especially with partial fractions. Easy computation, including the numerical solution of equations.

PAPER II

Calculus.—Differentiation and intergration of simple standard forms and other forms depending on them; application to easy geometrical, mechanical and physical problems, to turning values, and to the expansion of simple algebraic and trigonometrical functions. A working knowledge (without rigorous fundamental demonstrations) of the elementary infinite series for 1 (1 plus x)^m, e^x , \log (1 plus x) and their use in approxmative calculations

Mechanics.—The equilibrium of bodies in two dimensions: link polygons Harmonic motion. Simple and conical pendulums. Projectiles. Simple cases of linked mechanism. The rotation of a rigid body about a fixed axis. The action of such mechanical devices as crank mechanisms, engine governors, cranes, brakes.

4. From the marks assigned to candidates to each subject such deduction will be made as the Union Public Service Commission may consider necessary in order to secure that no credit is allowed for merely superficial knowledge.

5. If a candidate's handwriting is not legible a deduction will be made on this account from the total marks otherwise accruing to him. Marks will also be deducted for bad English spelling.

APPENDIX III

The grant of scholarships is entirely at the discretion of the States Governments concerned and is subject to the fulfilment of the conditions stipulated for their award. Therefore, the fact that a candidate has been selected to go for training to the United Kingdom will not automatically entitle him to the award of a scholarship.

<i>State Govt.</i>	<i>No. of scholar- ships</i>	<i>Branch</i>	<i>Value of each Scholarship</i>
Bombay	3	Electrical Engineering	£ 140
Delhi	3		£ 135
West Bengal	6		-do-
United States of Travancore and Cochin			-do-
Myntre			-do-
Madhya Pradesh	1		£ 140
Assam	2		Rs- 1900-
Uttar Pradesh	6		Deficit upto £ 116 according to the financial circum- stances of a Cadet.
Rajasthan	1		£ 125
Coorg	1		£ 116
Bihar	2		-do-
Andaman & Nicobar	1		-do-
Orissa	3		-do-
Punjab	2		-do-
Hyderabad Deccan	3		-do-
Patiala & East Punjab States Union	1		-do-

S.R.O. 98.—In exercise of the powers conferred by section 13 of the National Cadet Corps Act, 1948 (XXXI of 1948), the Central Government hereby directs that the following further amendments shall be made in the National Cadet Corps Rules, 1948, namely:—

For clause (e) of sub-rule (2) of rule 42 of the said Rules the following clause shall be substituted, namely:—

“(e) One officer of the Army to be nominated by the General Officer Commanding-in-Chief the Command from the staff of the Headquarters of the Command or Area.”

H. C. SARIN, Dy. Secy.

S.R.O. 99.—In pursuance of sub-section (7) of Section 13 of the Cantonments Act, 1924 (II of 1924), the Central Government is pleased to notify that a vacancy has occurred in the Cantonment Board Ambala, by reason of the acceptance by the Central Government of the resignation of Maj. E. K. U. Varma.

[No. 19/15/G/L&C/50/1133-G/53/1043/LC/D(O&C).]

S.R.O. 100.—In pursuance of sub-section (7) of Section 13 of the Cantonments Act, 1924 (II of 1924), the Central Government is pleased to notify the nomination of Sq. Ldr. A. K. Ganguly, as a member of the Cantonment Board, Ambala, *vice* Maj. E. K. U. Varma resigned.

[No. 19/15/G/L&C/50/1133-G/53/1043/LC/D(O&C).]

S.R.O. 101.—In pursuance of sub-section (7) of Section 13 of the Cantonments Act, 1924 (II of 1924), the Central Government is pleased to notify that a vacancy has occurred in the Cantonment Board Meerut, by reason of the acceptance by the Central Government of the resignation of Capt. D. R. Chibber.

[No. 19/6/G/L&C/52/1131-G/53/1014/LC/D(O&C).]

S.R.O. 102.—In pursuance of sub-section (7) of Section 13 of the Cantonments Act, 1924 (II of 1924), the Central Government is pleased to notify the nomination of Lt. K. B. Chengappa, as a member of the Cantonment Board, Meerut, *vice* Capt. D. R. Chibber, resigned.

[No. 19/6/G/L&C/52/1131-G/53/1014/LC/D(O&C).]

S.R.O. 103.—In pursuance of sub-section (7) of Section 13 of the Cantonments Act, 1924 (II of 1924), the Central Government is pleased to notify that a vacancy has occurred in the Cantonment Board, Wellington, by reason of the acceptance by the Central Government of the resignation of Maj. J. R. Daniel.

[No. 19/14/G/L&C/50/1082-G/53/1042/LC/D(O&C).]

S.R.O. 104.—In pursuance of sub-section (7) of Section 13 of the Cantonments Act, 1924 (II of 1924), the Central Government is pleased to notify the nomination of Maj. B. K. Somalah, as a member of the Cantonment Board, Wellington, *vice* Maj. J. R. Daniel, resigned.

[No. 19/14/G/L&C/50/1082-G/53/1042/LC/D(O&C).]

K. T. SATARAWALA, Dy. Secy.

S.R.O. 105.—In exercise of the powers conferred by section 60 of the Cantonments Act, 1924 (II of 1924), the Cantonment Board, Fatehgarh, with the previous sanction of the Central Government hereby imposes a tax on all the cattle kept or grazed within the limits of the Cantonment of Fatehgarh at the following rates, namely:—

Cattle Tax

A tax at the rate of Rs. 3 (Rupees three) per head of cattle per annum shall be payable by the owner or other person in charge of any camels, horses, mares, ponies, mules, buffaloes, donkeys, cows and pigs kept or grazed within the Cantonment limits and a tax at the rate of Re. 1 (Rupee one) per head of cattle per annum shall be payable by the owner or any person in charge of any sheep or goat kept or grazed within the Cantonment limits.

Provided that the tax shall not be levied in respect of animals owned or employed by the Central Government or any State Government or the Cantonment Board, Fatehgarh.

Provided further that no tax shall be levied in respect of calves below one year of age.

[No. 53/26/G/L&C/52/1150/LC/D(O&C).]

S.R.O. 106.—In pursuance of sub-section (7) of Section 13 of the Cantonments Act, 1924 (II of 1924), the Central Government is pleased to notify that a vacancy has occurred in the Cantonment Board Nasirabad, by reason of the acceptance by the Central Government of the resignation of Maj. Ram Dass.

[No. 19/14/G/L&C/52/1033-G/53/1166/LC/D(O&C).]

S.R.O. 107.—In pursuance of sub-section (7) of Section 13 of the Cantonments Act, 1924 (II of 1924), the Central Government is pleased to notify the nomination of Lt. K. L. Narang, as a member of the Cantonment Board, Nasirabad, *vice* Maj. Ram Dass, resigned.

[No. 19/14/G/L&C/52/1033-G/53/1166/LC/D(O&C).]

N. J. KAMATH, Dy. Secy.